JVC

# CA-MX30BK

MODEL

USER MANUAL

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# Getting started

The CA-MX30BK produces a full, powerful sound.
With JVC's newly developed labyrinth port system speakers,the CA-MX30BK can produce a sound comparable to a large stereo system.

## Features

It has a variety of functions, which are equivalent to those of large, expensive stereo systems.

- Programmable timers for setting recording, wake-up music, and fall-asleep music.
- Storage of 40 radio stations (FM and AM) in memory.
- Fade-out of last track during direct CD-to-tape recording.
- CD tracks can be recorded on both sides of a cassette tape without splitting songs at the end of a side.
- CD tracks can be played back or recorded on both sides of a cassette tape in any order.

Input terminals for connecting a Digital Audio Tape (DAT) Deck, the sound portion of Video Cassette Recorder (VCR) and Turntable.

## Introduction

Thank you for purchasing this JVC CA-MX30BK Compact Component Stereo System. We hope it will be a valued addition to your home, giving you years of enjoyment.

Be sure to read this instruction manual carefully before operating your new stereo system. Here you will find all the information you need to set up and use the system.

For questions that cannot be answered in this manual, please contact your dealer.

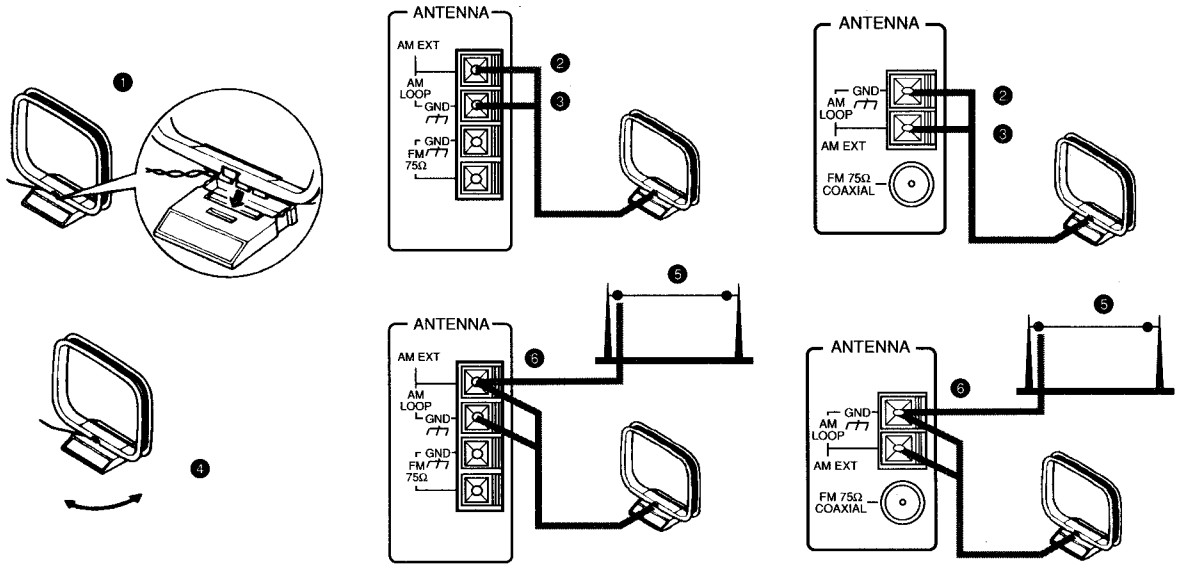
**CAUTION**

To reduce the risk of electrical shocks, fire, etc.:
1. Do not remove screws, covers or cabinet.
2. Do not expose this appliance to rain or moisture.

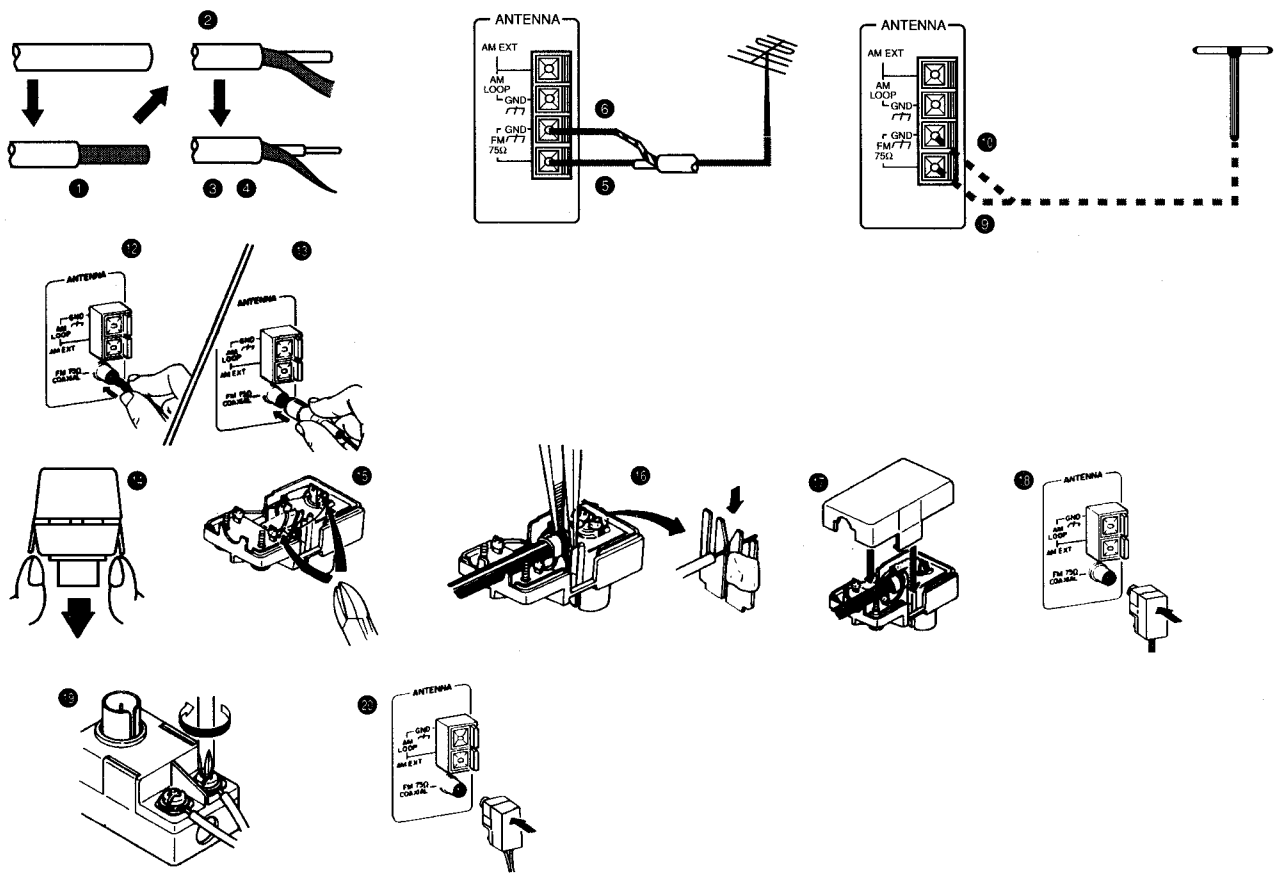
Only use compact-discs bearing the mark shown below.

COMPACT disc DIGITAL AUDIO

## *AM Antenna Connections MW/LW-Antennenancechluß Raccordement des antennes MA AMantenne aanalultlng Conexion de la antenna de AM ANSLUTNING AV AM-antenn*




## *FM Antenna Connections UKW-Antennenschlüsse Raccordement d'une antenne MF FM antenne aanslv|ting Conexion de la antena de FM Anslutning av AV-antenn*



# Connecting the System Components

## Connection Notes

- Before you plug in the system, you must make all the necessary connections.

# AM Antenna Connections

To receive AM broadcasts you will have to connect an AM antenna to the CA-MX30BK.
An AM loop antenna is included with your system. Connect the antenna as follows.

1. **Fold out the loop from the antenna base.**
2. **Connect one AM antenna wire to one of the AM Loop terminals at the rear of the CA-MX30BK. Either the GND or the AM EXT terminal.**
3. **Connect the remaining AM antenna wire to the other AM LOOP terminal.**
4. **Adjust the loop antenna as needed to get the best result.**

## AM Outdoor Antenna

If your AM(MW/LW) broadcast reception is unsatisfactory, you should connect an AM outdoor antenna in addition to the loop antenna.

**Important !** The AM loop antenna must be installed to receive AM broadcasts. Do not disconnect the loop antenna when installing an outdoor antenna.

5. **Install a single vinyl covered antenna wire outdoors.** The antenna wire should be about 16 to 40 feet (5 to 12 meters long).
6. **Connect one end of the antenna to the AM loop terminal marked AM EXT.**

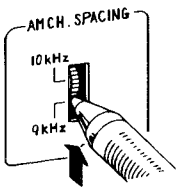
**Note:** Except for the connection make sure no uninsulated antenna wire touches the rear panel of the CA-MX 30BK. Otherwise you may not receive AM (MW/LW) broadcasts.

## AM channel spacing

AM CH. SPACING switch is provided on the rear panel to select between 9 KHz or 10 KHz steps depending on the area in which the receiver is used. (Not provided on units for Canada, Australia, United Kingdom and continental Europe.)

| Band / Area | FM | AM (MW) | AM (LW) |
|---|---|---|---|
| Canada | 100 kHz | 10 kHz | — |
| Europe, U.K. | 50 kHz | 9 kHz | 1 kHz |
| Australia | 50 kHz | 9 kHz | — |
| Others area | 50 kHz | 9 kHz* or 10 kHz | — |

**Note:** *Preset at the factroy.




First, turn the power ON press the FM button to set to the FM mode, then disconnect the power cord. Wait for a few seconds and switch over the AM CH. SPACING switch as shown in figure using the tip of a ballpoint pen.

# FM Antenna Connctions

To receive FM broadcasts, you should connect an FM antenna to the CA-MX30BK.

FM antennas use one of two cable types.They are the coaxial cable and the flat feeder cable.

## Connecting a Coaxial Antenna Cable

1. **Strip of about an inch of the coaxial cable's outer sheathing. This will expose the braid underneath.**
2. **Strip back the braid without removing it about half an inch.This will expose the conductor wire underneath.**
3. **Twist the braid so that it tapers to a point.**
4. **Open the antenna terminals.**
5. **Place the conductor wire in the FM antenna terminal.**
6. **Place the braid into the GND terminal.**
7. **Close the antenna terminals.**

## Connecting a Flat Feeder Antenna Cable

8. **Open the antenna terminals.**
9. **Place one of the two antenna cable wires into the FM antenna terminal.**
10. **Place the other wire into the GND terminal.**
11. **Close the antenna terminals.**

### — For R.F.Germany —

12. **The FM wire antenna provided canbe connected to a FM 75Ω COAXIAL as a temporary measure.**
13. **A 75-ohm antenna with coaxial type connector (DIN 45 332) should be connected to the FM 75 Ω COAXIAL terminal.**

### — For Continental Europe and U.K. —

## FM 75-ohm antenna Cable

14. **Open the claws at both sides and remove the cover.**
15. **Cut both ends of the cord and remove it. (only when using coaxial cable)**
16. **Fix the coaxial cable and its core.**
17. **Put on the cover.**
18. **Connect the FM connector the FM 75 Ω COAXIAL terminal.**

## FM Feeder Antenna Cable

19. **Attach the feeder antenna to the FM connector as shown in the figure.**
20. **Connect the FM connector to the FM 75 Ω COAXIAL terminal.**

## Connecting The Speakers

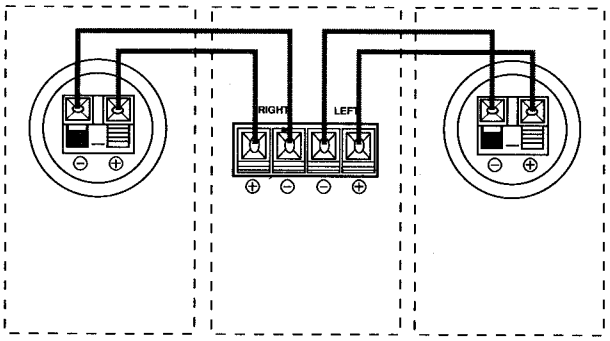
### Speaker Terminals

1. **When connecting speakers, open each terminal and insert the end of the speaker wire as shown.**
2. **Close the terminals as shown to clamp the speaker wires in place.**

### Speakers

3. **Connect the red ( + ) and black ( – ) terminals of the right side speaker to the red ( + ) and black ( – ) terminals marked RIGHT on the CA-MX30BK.**
4. **Connect the red ( + ) and black ( – ) terminals of the left side speaker to the red ( + ) and black ( – ) terminals marked LEFT on the CA-MX30BK.**

**Important !** Be sure to match the polarity of the speaker terminals with the polarity of the terminals on the CA-MX30BK. ( + ) red to ( + ) red and ( – ) black to ( – ) black.
The CA-MX30BK is only for use with speakers having impedence of 8 ohms. Check your speaker specifications to make sure the speakers have the correct impedance.



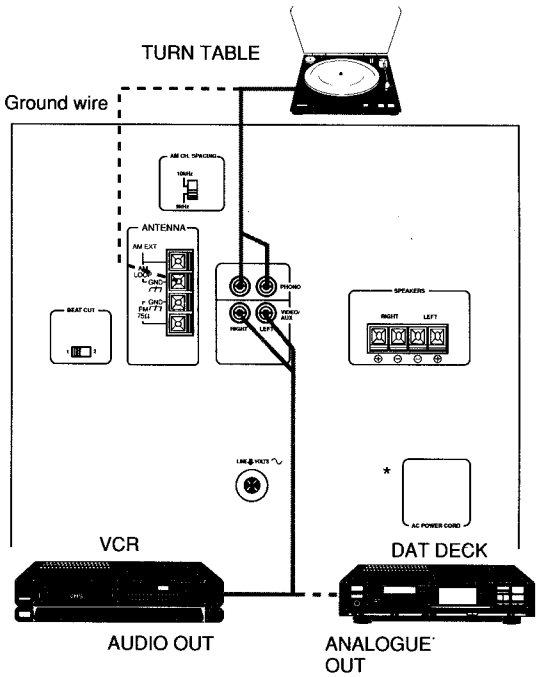

### Laying Out The System

Allow a gap between the CA-MX30BK and the speakers so that heat can diffuse.

## Connecting Other Components

The CA-MX30BK can also be connected to a Turntable, a Video Cassette Recorder (VCR) and a Digital Audio Tape (DAT) Deck.

Attach these components as shown below.

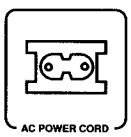



### *AC power connection

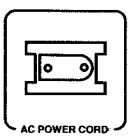
**Caution:** To prevent electric shock, turn all stereo components off before you install or remove power cord.

**Important!** Before you plug the power cord into an outlet, make sure all stereo components are connected correctly.

The AC power cord is supplied separately and must be connected to the unit before use.
Plug the power cord on the back of the CA-MX30BK into a AC household electrical outlet.




Continental Europe
U.K.
Australia
Other areas




Canada

* Voltage Selector
Not provided on units for the U.K., Canada, Australia and Continental Europe.

When this equipment is used in an area where the supply voltage is different from the preset voltage, reset the voltage selector to the correct position.

# Using the Amplifier

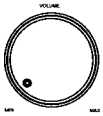
## Using the Power Switch

1. **Press the POWER switch to turn on the CA-MX30BK stereo system.**

   When the POWER switch is not pressed and the power cord is plugged in, the stereo is in STANDBY mode and STANDBY/RECEIVED lamp lights. In STANDBY mode, the stereo uses a small amount of power (15 watts) for the clock, memory contents, and any timers which are set.

2. **To disconnect power completely, unplug the power cord.**

## Adjusting the Volume Controls

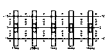


### Volume

Turn the VOLUME knob to adjust the volume level of the speakers or headphones.

### Balance

Slide the BALANCE knob to adjust the left-and-right sound balance in the speakers or headphones.



### Using the SEA Graphic Equalizer

By adjusting the frequency levels in the five available frequency ranges you can create your own sound.

### Recording With The SEA Graphic Equalizer

The SEA setting for a source such as CD will be reproduced when the source material is recorded.
This SEA effect can be eliminated by setting all the SEA control slides at zero.

When the slide lever controls on the SEA Graphic Equalizer are moved in the direction of the plus the sound range will increase. The range will decrease when the levers are moved in the direction of the minus.

## Using VCR, DAT or a Turntable

In addition to the CD player, Tuner, and Cassette Tape Deck, the CA-MX30BK can also play a DAT, a VCR or a turntable.
To connect these sources see Connecting Other Components on page

### Playing a Video Cassette

When a VCR is connected, the sound is heard through the speakers.

1. **Put a video cassette in the VCR.**
2. **Press the VIDEO/AUX button on the CA-MX30BK.**
3. **To operate the VCR, refer to its instruction manual.**

### Playing a DAT

1. **Put a DAT cassette in the DAT deck.**
2. **Press the VIDEO/AUX button on the Amplifier.**
3. **To operate the DAT deck, refer to its instruction manual.**

### Playing a Turntable

1. **Put a record on the turntable platter.**
2. **Press the Phono button on the Amplifier.**
3. **To operate the turntable, refer to its instuction manual.**

## Microphone Mixing

When the seperately sold microphone is connected to the MIC terminal you can mix in your own singing or speaking voice.

1. **Connect the microphone.**
   When connecting or disconnecting the microphone set the MIXING LEVEL knob to Source.

2. **The source you choose is played.**
3. **Use the mixing level knob to balance the music level with the microphone level.**

**Caution**
**When the mixing level is extreme, howling may occur.**
**If this occurs**
1. **Avoid pointing the microphone towards the speaker and move away from the speakers.**
2. **Turn down the microphone level using the mixing knob.**
3. **Turn down the volume.**

## SURROUND

Using surround you can enjoy a cocert hall sound in your own home.

# Using the CD Player



## Starting Playback

1. **Press the OPEN/CLOSE button on the CD Player.**
   The CD tray slides out.
2. **Place a CD (with the label facing up) in the tray, and press the OPEN/CLOSE button again.**
   The tray slides back in.

3. **Press the PLAY/PAUSE button on the CD Player, or the CD button on the Amplifier.**
   The CD Player begins playing the first track on the CD.

### Stopping Playback and Ejecting the CD

1. **Press the STOP/CLEAR button.**

2. **Press the OPEN/CLOSE button, and take the CD out of the tray.**
3. **Press the OPEN/CLOSE button again to close the tray.**

### Stopping and Restarting Playback

1. **Press the PLAY/PAUSE button.**
   Playback stops temporarily.
2. **Press the PLAY/PAUSE button again.**
   Playback restarts.

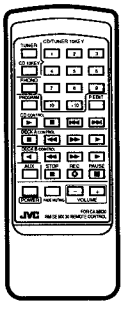
## Selecting a Track to Play

Press the SEARCH buttons to scan through the track numbers.

Press the ⏮ button to find tracks with decreasing numbers, and the ⏭ button to find tracks with increasing numbers.

- If you press the SEARCH buttons when the CD Player is in the PAUSE/STOP mode, you will find the track you selected. You can restart playback by pressing the PLAY/PAUSE button.
- If you press the SEARCH buttons continuously during playback, the CD will advance rapidly in the direction of the button.

### Using the Remote Controller to Select a Track



There are two ways to select a track with the Remote Controller.

Numerical keypad

⏮ or ⏭ buttons

### Using the Numeric Keypad

1. **Press the CD 10KEY button on the Remote Controller.**
2. **Enter the track's number with the number keys.**

- If the track you want to hear is the 8th track, press the [8] key.
- If the track you want to hear is the 15th track, press the [+10] key and the [5] key.
- If the track you want to hear is the 27th track, press the [+10] key twice and the [7] key once.

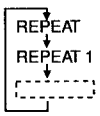
### Using the SEARCH Buttons

Press the SEARCH ⏮ or ⏭ button on the Remote Controller. See "Selecting a Track to Play".

## Listening Repeatedly

Using the REPEAT button, you can play the entire CD or a selected track repeatedly.

### Playing the Entire CD Repeatedly




- During playback, press the REPEAT button once.

  The CD will play through the last track and then start over again. It will keep repeating until you cancel the repetition.

### Playing a Selected Track Repeatedly

- During playback, press the REPEAT button twice.

  The current track will play to the end and then start over again. It will keep repeating until you cancel the repetition.

### Cancelling Repetition

Press the REPEAT button again.

Each track will play to the end and not repeat.

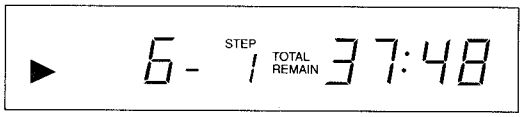
## Display Layout

### Time display

When the display button is pressed the time display will change.

| | |
|---|---|
| EACH | The total elapsed playing time since the beginning of playback of the current track. |
| EACH REMAIN | The time remaining until the end of the current track. |
| TOTAL | The total elapsed playing time since the beginning of playback of the CD. |
| TOTAL REMAIN | The total remaining time until the end of the CD. |

For Example:




Display mode: TOTAL REMAIN
Current track: 6th
Total remaining time: 37 minutes, 48 seconds

## Programming Your Own Playback Sequence

You can program the CD Player to play back the tracks of a CD in any order.

STOP/CLEAR

1. **Press the STOP/CLEAR button on the CD Player.**
   This puts the CD Player in STOP mode and clears existing programs from the memory.

PROGRAM

2. **Press the PROGRAM button on the Remote Controller.**

CD 10KEY

3. **Press the CD 10KEY button on the Remote Controller.**
   Pressing the CD10KEY button places the Remote Controller in CD mode. This means only buttons concerned with the CD are active.

4. **Enter the track numbers in the order you want them played back.**

- **For example:** if the first three tracks you want to hear played back are tracks 17, 5, and 10, press the [+10] key and the [7] key (for track 17). Then press the [5] key (for track 5) and the [10] key (for track 10).
- You can program up to 32 tracks.

  If the total time of all the programmed tracks is 100 minutes or more, the display will show "—:—" (since the highest time the display can show is "99:59").

PLAY/▮▮PAUSE

5. **Press the PLAY/PAUSE button on the CD Player, or the ▶ button on the Remote Controller.**
   Playback begins with the first track in the program.

- To make a change in the program, press the STOP/CLEAR button and go back to step 4.

### Checking the Program

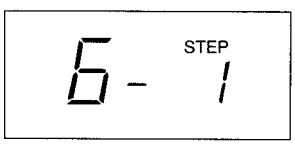
You can check the programmed sequence of playback to determine which tracks will be played in which order.

**Note:** The program contents cannot be displayed during playback. Press the STOP/CLEAR button if the CD Player is in play mode.

⏮ ◎ / ◎ ⏭

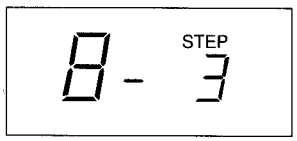
1. **Press the SEARCH button once.**
   The first track in the program is displayed, along with its sequence number.

**For example:** this display shows that the 6th track will be played first.




2. **Press the SEARCH button repeatedly.**
   The rest of the tracks in the program are displayed, along with their sequence numbers.

**For example:** this display shows that the 8th track will be played third.




### Listening to Programmed Tracks Repeatedly

REPEAT

1. **Press the REPEAT button to listen to the programmed sequence of playback repeatedly**

PLAY/▮▮PAUSE

2. **Then press the PLAY/PAUSE button.**

### Updating the Program

You can add tracks to the program.

#### Adding Tracks to the Program

CD 10KEY

1. **Press the CD 10KEY button on the Remote Controller.**
   Pressing the CD 10KEY button puts the numeric keys in CD mode.

2. **Enter the track numbers with the numeric keys in the order you want them played back.**
   The track numbers you enter are added to the end of the program.

### Updating the Entire Program

You can replace the old program with a new one.

STOP/CLEAR

1. **Press the STOP/CLEAR button on the CD Player.**
   This clears the programmed sequence of playback from memory.

**To clear the program during playback:**
- Press the STOP/CLEAR button twice (once to stop, twice to clear the program from memory)
- Press the STOP/CLEAR button after pressing the STOP button on the Remote Controller.

PROGRAM

2. **Press the PROGRAM button on the Remote Controller.**

CD 10KEY

3. **Press the CD 10KEY button on the Remote Controller.**
   Pressing the CD 10KEY button puts the numeric keys in CD mode.

4. **Enter the track numbers with the numeric keys in the order you want them played back.**

### Cancelling Programmed Playback

PROGRAM

1. **Press the PROGRAM button on the Remote Controller.**
   This puts the CD Player in normal playback mode. The tracks will play back in their regular order.

**Note:** When Tuner is selected as the source, cd OFF is displayed, and only the Open/Close Disk Tray and Playback buttons can be used. To use other buttons, press the CD button on the Amplifier or the CD Playback button on the Remote Controller first.

## Random Play

In RANDOM mode, the CD player selects and plays tracks at random.

RANDOM

1. **Press the RANDOM button to select the RANDOM mode.**

STOP/CLEAR

2. **Press the STOP/CLEAR button to stop random play**
   - Selections can be made so that each track would be played only once.

# *Using the Tape Deck*

## Playing a Tape

The tape deck has an Auto Tape Select feature, which can tell the difference between various types of cassette tape. It can distinguish between Normal (Type I), $CrO_2$ and High Position (Type II). After it determines the tape type, bias and equalization are automatically set for the tape.

1. **Press the PUSH OPEN on the corner of the cassette holder.**
2. **Insert a cassette and shut the cassette holder.**

DOLBY B NR

3. **If the tape was recorded with Dolby B noise reduction, press the DOLBY B NR button.**
   The indicator light will go on.

4. **Start playback by either of the following methods:**
   - Press the ◁ ▷ button.
     Press the ▷ button if the tape is wound mostly on the left side.
     Press the ◁ button if the tape is wound mostly on the right side.
   - Press the TAPE button on the Amplifier.

TAPE

**Note:** When cassettes are in both decks A and B, deck B starts first.

Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.
"DOLBY" and the double-D symbol ⧈ are trademarks of Dolby Laboratories Licensing Corporation.

### Stopping Playback and Ejecting the Tape

1. **Press the STOP on the corner of the cassette holder to open, on the tape deck.**
2. **Press the PUSH OPEN button and remove the tape from the cassette holder.**
3. **Shut the cassette holder.**

**Note:** If the system is turned off while a tape is playing, you may not be able to eject the tape. You will need to turn the system back on and press the PUSH OPEN on the cassette holder to open it.

### Stopping and Restarting Playback

1. **Press the PAUSE button on the tape deck.**
   Playback of the tape in deck B stops temporarily.

**Note:** The PAUSE button only applies to deck B.

2. **Press the ◁ or ▷ button.**
   This restarts playback of the tape in deck B.

## Changing the Playback Direction

1. **To change the playback direction during playback, press the ◁ or ▷ button.**
   The other side of the tape will now play.

2. **To change the playback direction without starting playback, press the ◁ or ▷ button while also pressing the STOP button.**
   This allows you to set the tape direction for a timed recording.

### Fast-Winding the Tape

Press the ◀◀ or ▶▶ buttons on the Tape Deck to advance the tape rapidly in the direction of the arrows.

## Listening to Tape Continuously

You can set the tape deck up to play the tapes in decks A and B repeatedly.

1. **Insert cassettes into decks A and B.**

REV. MODE

2. **Press the REV. MODE button**
   - Deck B will be placed in reverse mode, which means that it will play all of one side of the tape and then all of the other side.
   - Deck A moves only in the forward direction.

TAPE

3. **Press the ◁ or ▷ button of the deck to be started first.**
   - Now both sides of deck B's tape and one side of deck A's tape will play repeatedly.
   - If deck B is not placed in reverse mode, only one side of the tape in deck B will play.
   - If you press the TAPE button on the Amplifier, deck B will start first.

## Music Scanning

\+

The music scan function will detect the blank segments between tracks. The blank should be about 4 seconds long for the music scan to be effective.

You can locate the beginning of the current track or next track quickly by pressing the playback button and the fast-winding button simultaneously.

### Searching for Beginning of the Current Track

- If the tape is travelling in the forward direction, press the ◀◀ fast-winding button while simultaneously pressing the ▷ playback button.
- If the tape is travelling in the forward direction, press the ▶▶ fast-winding button while simultaneously pressing the◁ playback button.

### Searching for Beginning of the Next Track

- If the tape is travelling in the forward direction, press the ▶▶ fast-winding button while simultaneously pressing the ▷ playback button.
- If the tape is travelling in the forward direction, press the ◀◀ fast-winding button while simultaneously pressing the◁ playback button.

**Note:** The deck that is playing will stop if the music scan function is used on the other deck.

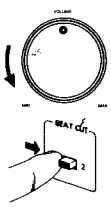
**The music scan function is not effective:**
- When the track being scanned contains an area of low sound level.
- When the blank between tracks is short.
- When there is noise, for example, a hum between tracks.

## *Recording a Tape*

- Normal and $CrO_2$ tape can be used for recording. Metal can only be used for playback.

DOLBY B NR
- To reduce hiss, use the Dolby B noise reduction system. Press the DOLBY B NR button. The indicator light will go on.
- To record on sides A and B continuously, press the REV. MODE button. The indicator light will go on.

The source will be recorded to the end of side A. Then the tape will reverse direction and recording will continue on side B.



- The recording level is set automatically.
- If you don't want to hear the system during recording, turn the VOLUME knob on the Amplifier down.
- If the small tabs on cassette tapes to prevent accidental erasure have been removed, the contents of the tape cannot be recorded over. To record, cover the holes with adhesive tape.
- If you are recording an AM broadcast and you hear interference, move the BEAT CUT switch on the back of the stereo from Position 1 (the normal mode) to Position 2.

### Recording from Various Sources

1. **Insert a cassette for recording into deck B.**
   Deck A is used for playback only, and deck B is used both for recording and playback.

2. **Select the source you are recording from:**
   You can record from the CD player,Tape Deck(Deck A ),the Tuner,or another component such as a VCR,DAT or a Turntable.

3. **Press the PAUSE button on the Tape Deck while simultaneously pressing the REC/REC MUTE button.**
   This puts the tape deck in REC/PAUSE mode.

4. **Start the source to be recorded.**

5. **Press the play ◁ or ▷ button on deck B to start recording.**

6. **To stop recording, press the STOP button on deck B.**

7. **To stop recording temporarily, press the PAUSE button on deck B.**

8. **To restart recording again, press the PLAY button ◁ or ▷ .**
   This way you can avoid recording unwanted portions of the source such as commercials over a broadcast.

**Note:** Pre-recorded tape, records or discs should not be re-recorded without the consent of the owners of copyright in the sound recording and in any copyright musical or literary work embodied in that recording as this constitutes an infringement of copyright.

## *Dubbing a Tape*

You can make a tape-to-tape recording at either normal or high speed. Recording from another tape is called dubbing.

### Normal-Speed Dubbing

1. **Insert the cassette for playback into deck A and the cassette for recording into deck B.**
- Deck A is used for playback only, and deck B is used for both recording and playback.
- The type of tape (Normal,$CrO_2$) you record from must be the same as the type of tape you record onto.

DOLBY B NR
- To dub a tape which was recorded with Dolby B noise reduction, press the DOLBY B NR button on the tape deck to the OFF position(The light will be off)

2. **Press the PAUSE button while simultaneously pressing the REC/REC MUTE button on deck B.**
   This places deck B in REC/PAUSE mode.

3. **Press the PLAY button ▷ on deck A.**

4. **Press the PLAY button ◁ or ▷ (depending on which side of the tape you want to record onto) on deck B.**
- The tape-to-tape recording starts.

**Note:** You cannot listen to another source during normal-speed dubbing.

- To stop normal-speed dubbing before the end of either the playback or record tape, press the STOP buttons on decks A and B.

### High-Speed Dubbing

1. **Insert the cassette for playback into deck A and the cassette for recording into deck B.**

HIGH SPEED DUBBING
2. **Press the HIGH SPEED DUBBING button on the Tape Deck.**
- The high-speed tape-to-tape recording starts.

**Note:** You can listen to another source while high-speed dubbing is in progress.

- To stop high-speed dubbing before reaching the end of either the playback or record tape, press the STOP button on deck B.

**Note:** If a nearby television is on during high-speed dubbing, a beeping noise may be recorded onto the record tape. Turn off the television or move it farther away.

3. **Press the STOP button on deck A when you hear the end of a track to record from many different tapes (for example, to create a "Greatest Hits" tape)**
   Deck A stops playback, and deck B automatically creates about a 4 second blank, then pauses.

**Note:** If you don't want this blank, press the PAUSE button on deck B before pressing the STOP button.

4. **Put another tape into deck A.**

HIGH SPEED DUBBING
5. **Press the HIGH SPEED DUBBING button on the Tape Deck.**
   The high-speed dubbing restarts.

6. **To record tracks from other tapes, repeat steps 3 - 5.**

**Note:** The SEA Recording is not effective during high-speed dubbing.

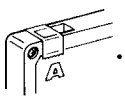
## Erasing a Tape

1. **Insert the tape to be erased into deck B.**
   - To erase music on both sides, press the REV. MODE button on the Tape Deck.

2. **Press the PAUSE button while simultaneously pressing the REC/REC MUTE button.**
   This puts the deck in REC/PAUSE mode.

3. **Press the TAPE button on the Amplifier.**

4. **Press the ◁ or ▷ button (depending on which side of the tape you want to erase) on deck B.**
   The erasure of the tape begins.



- Small tabs are provided on cassette tapes to prevent accidental erasure. If these tabs have been removed, the contents of the tape cannot be erased or recorded over.
- To record or erase, cover the holes with adhesive tape. (The tab in the upper left corner is the tab for the side facing you, and the other tab is for the opposite side.)

## Direct Recording from the CD Player

The system sets recording levels automatically.

1. **Insert the cassette for recording into deck B.**
   - Press the REV. MODE button on the Tape Deck if you want to record on both sides of the cassette.

2. **Put a CD in the CD Player.**
   - See "Starting Playback" on page 8 for instructions on how to load a CD.

3. **Press the CD DIRECT REC button on the Tape Deck.**
   - The CD Player and the Tape Deck are activated, and recording begins with the first track of the CD.

   - To stop direct recording, press the STOP button on deck B or the STOP/CLEAR button on the CD Player.

4. **To fade out the CD gradually at the end of the tape, press the FADE button on the CD Player.**
   The volume level of the last track on the tape is lowered gradually to 0. This makes a nice ending to your tape and prevents an abrupt cut-off of music if the tape ends before the CD.

5. **To cancel the fade-out function during recording, press the FADE button again on the CD Player.**
   The fade-out function operates in both forward and reverse directions.

- When the end of the tape is reached, the tape is rewound to the the beginning of the last track.
- The last track is played back again from the CD Player and recorded again on the tape. This time the sound level is reduced gradually at the end.

## Recording CD Tracks in Auto-Edit Mode

In Auto-Edit mode, tracks from the CD will automatically be selected to determine which tracks should go on side A of the tape and which should go on side B.

The selection is based on the lengths of the tracks and the length of the tape. This ensures a proper "fit" of the tracks recorded on the tape. It prevents a track from being cut off when the end of the tape is reached.

1. **Insert the cassette for recording in deck B.**
   - Press the REV. MODE button on the Tape Deck if you want to record on both sides of the cassette.

2. **Put the CD in the CD Player.**
   See "Starting Playback" on page 8 for instructions on how to load a CD.

3. **Press the STOP/CLEAR button on the CD Player.**

4. **Press the A. EDIT button on the CD Player to tell the system the length of the tape in the Tape Deck.**

   - The tape length most suitable for CD recording is displayed first.
   - Each time the A. EDIT button is pressed, the next standard tape length blinks, in this order:

     →C46→C54→C60→C74→C90→ (back to the beginning)

   - You can also enter a non-standard tape length from the Remote Controller using the numeric keys.

**For example:** to enter a tape length of 50 minutes, press the CD 10KEY button on the Remote Controller, then press the [+10] key four times and the [10] key once.

5. **Press the SIDE A/B button on the CD Player.**

   - **The CD Player calculates which tracks should be placed on side A and which should be placed on side B, based on the lengths of the tracks and the length of the tape. The number of each track selected for placement on side A or B lights on the display.**
   - **If there are track numbers that do not light after you have pressed the SIDE A/B button, this means that the tape has more room. To add these tracks, use the numeric keys on the Remote Controller.**
   - **If you do not press the SIDE A/B button, the CD Player automatically decides which tracks should be placed on sides A and B about 4 seconds after the A. EDIT button is pressed.**

**Note:** Up to 16 tracks can be allocated for each side of the cassette.

6. **Press the CD DIRECT REC button on the Tape Deck.**

   - The tape is automatically rewound to the beginning of side A, and then recording begins.
   - After the last track is recorded on side A, the tape deck high-speed-erases to the end of side A. Then it changes direction to side B and begins recording the remaining tracks.

   - To stop recording, press the STOP button on deck B, or press the STOP/CLEAR button on the CD Player.

   - After the last track has been recorded, a 4 second blank is created. Then the tape stops automatically.

**Note:** During recording in the Auto-Edit Mode, do not operate the CD Player.

## Recording CD Tracks in Programmed-Edit Mode

In Programmed-Edit Mode, you decide which tracks from the CD will be recorded, and in what order.

1. **Insert the cassette for recording in deck B.**

- Press the REV. MODE button on the Tape Deck if you want to record on both sides of the cassette.

2. **Put the CD in the CD Player.**
See "Starting Playback" on page 8 for instructions on how to load a CD.

3. **Press the STOP/CLEAR button on the CD Player.**

4. **Press the P. EDIT button on the Remote Controller to tell the system the length of the tape in the Tape Deck.**

- Each time the P. EDIT button is pressed, the next standard tape length blinks, in this order:

→C46→C54→C60→C74→C90→ (back to the beginning)

- You can enter a non-standard tape length from the Remote Controller using the numeric keys.

**For example:** to enter a tape length of 50 minutes, press the CD 10KEY button on the Remote Controller. Then press the [+10] key four times and the [10] key once.

5. **Press the SIDE A/B button on the CD Player.**

- This tells the system that you will be choosing tracks to be recorded on side A of the tape.
- The length of time for one side of the tape is displayed. This is half of the total tape length. The total time for the tracks you choose for each side cannot exceed this time.
- If you do not press the SIDE A/B button, side A is automatically selected.

**Note:** During recording in the Programmed-Edit Mode, do not operate the CD Player.

6. **Press the CD 10KEY button on the Remote Controller.**
This places the numeric keys in CD Mode.

7. **Enter the numbers of the tracks you want recorded on one side of the tape.**

- Tracks on a CD assigned numbers 32 or greater cannot be entered in the program.
- If the length of a track exceeds the remaining tape length, the time indication blinks on the display. Choose a different track number.

- To make a change in the program, press the STOP/CLEAR button and refer back to step 4.
- To add a track to the program, enter the track's number with the numeric keys on the Remote Controller.

8. **If you also want to record on the other side of the tape, press the SIDE A/B button on the CD Player and repeat step 7.**
If you only want to record on one side of the tape, skip this step.

9. **Press the CD DIRECT REC button on the Tape Deck.**

- The tape is automatically rewound to the beginning of side A, a 15 second blank is created, and then recording begins.
- After the last track is recorded on side A, the tape deck high-speed-erases to the end of side A. It changes direction to side B, and begins recording the remaining tracks on side B.

- To stop recording, press the STOP button on deck B, or press the STOP/CLEAR button on the CD Player.

- After the last programmed track has been recorded, a 4 second blank is created. Then the tape stops automatically.

**Note:** The program cannot be edited during recording. To change the program, press the STOP/CLEAR button on the CD Player and begin with step 4 of this procedure.

## Recording With the SEA Function

The SEA Function is used to alter the tone of the source by increasing or decreasing the levels of selected frequency ranges.

You can use this function to control the way the tracks from the CD will sound when they are recorded on the tape.

1. **Insert the cassette for recording in deck B.**
- To create the desired sound, see "Adjusting the Volume Controls" on page 7.

2. **Press the ◁ or ▷ button on the Tape Deck while holding down the REC/REC MUTE button.**
Recording starts.

**SEA Function Notes**
- The SEA Function cannot be used during high-speed dubbing.
- If the source you are recording from is a cassette in deck A that was created using Dolby B noise reduction, the noise reduction effect is lost when you dub using the SEA Function.
- To keep the noise reduction effect of the cassette in deck A, use either of these methods:
— High-speed dubbing.
— Normal speed dubbing, with the SEA Function off and the DOLBY B NR button set to OFF.

## Creating a Blank During Recording

Use the Record Muting function when you do not want to record a section of the source.

1. **Press the REC/REC MUTE button on the Tape Deck at the beginning of the section you don't want to record.**
A blank of about 4 seconds is created on the cassette, and then the deck pauses.

2. **To start recording again, press the ◁ or ▷ button.**

- To create a blank of more than 4 seconds, hold down the REC/REC MUTE button. When you release this button, the deck pauses.
- When the source you are recording from is the CD Player and the CD DIRECT REC button is used, the REC MUTE button will not function.

## Recording with the Timer

The CA-MX30BK can be set up to record a tape automatically. This is especially useful for recording broadcasts when you are not around, or late at night when you are asleep.

1. **Insert a cassette for recording into deck B.**
2. **Set the timer, by following the steps in "Setting the Timers" on page 16 .**
3. **Select one of the following sources:**

| | |
|---|---|
| TUNER TIMER REC | Records TUNER preset stations |
| — —TIMER REC | Records from the source selected before turning off the system |

# Using the Tuner

The clock will be displayed even when the system is turned off. Pressing the TUNING/TIMER/DIMMER buttons ( ◁ or ▷ ) will switch between two brightness levels for the clock.

## Setting the Clock

1. **Press the CLOCK ADJUST button on the Tuner.**
   The hours digits blink.

2. **Press the TUNING/TIMER/DIMMER button ( ◁ or ▷ ) to set the hours digit.**

- Press the ▷ button to increase the hour, and press the ◁ button to decrease the hours.
- To enter a new hour digit, press the CANCEL button and repeat step 2.

3. **Press the MEMORY button on the Tuner.**
   This sets the hour portion of the time.

- The minutes digits will blink.

4. **Press the TUNING/TIMER/DIMMER button ( ◁ or ▷ ) to set the minutes digit.**

- It's a good idea to set the minutes digits one minute ahead. Then you can start the clock when it reaches the set time exactly (according to the correct time from the TV, radio, or telephone).
- To enter a new minute digit, press the CANCEL button and repeat step 4.

5. **Press the MEMORY button.**
   The clock starts as soon as you press the MEMORY button.

**Caution:** If there is a power failure, or if you unplug the stereo, the clock time will be lost. Repeat steps 1-5 when power is restored.

## Listening to Broadcasts (FM and AM)

The Tuner of the CA-MX30BK can receive FM and AM (MW/LW) broadcasts. Stations can be tuned in manually, automatically, or from preset memory storage.

### Manual Tuning

1. **Select the broadcast band you want to tune in by pressing the FM or AM (MW/LW) button on the Tuner.**

2. **Press the TUNING/TIMER/DIMMER button ( ◁ or ▷ ) to tune in a station.**
3. **Hold down the TUNING/TIMER/DIMMER button to change the frequency rapidly, then tap the button to set the frequency precisely.**

### Automatic Tuning

1. **Select the broadcast band you want to tune in by pressing the FM or AM (MW/LW) button on the Tuner.**

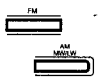
2. **Hold down the TUNING/TIMER/DIMMER button ( ◁ or ▷ ) for a moment, and then release the button.**

- When a station is tuned in, the TUNED indicator lights up.

**Note:** The Tuner will tune in the nearest strong station.

## Presetting stations in Memory

You can store up to 40 of your favorite radio stations (FM and AM) in memory, giving you quick, easy access to the stations.




1. **Select a band by pressing either the FM or AM (MW/LW) button on the Tuner.**

2. **Press the TUNING/TIMER/DIMMER button ( ◁ or ▷ ) to tune in station.**

3. **Press the MEMORY button on the Tuner.**
   The "MEMORY" indicator on the Tuner display blinks for 5 seconds.

4. **Press the PRESET button ( △ or ▽ ) on the Tuner to assign a number (1-40) to the station, or enter a number (1-40) on the Remote Controller's numeric keypad.**

- If you press another button by mistake, press the MEMROY button again and repeat step 4.
- If the "MEMROY" indicator has stopped blinking, press the MEMROY button again and repeat step 4.
- If the preset number you chose already, has a station assigned to it, the old station will be replaced by the new one.

5. **Press the MEMROY button again.**
   This stores the station in memroy, with the preset number (1-40) you chose in step 4.
6. **Repeat steps 1-5 for each station you want to store in memory with a preset number.**

# Using Auto-Memory and Preset Scan

## Using Auto-Memory

The Auto-Memory function lets you scan a series of radio stations, and preset the ones you want into the CA-MX30's memory. The CA-MX30's tuner will scan radio frequencies and preset the stations, as they are tuned, with ascending channel numbers.

1. **Press the AM (MW/LW) or the FM button.**

2. **Use the TUNING/TIMER/DIMMER button to find the lowest frequency you want to start scanning from.**

3. **Press the Auto-Memory button.**
   The "MEMORY" indicator lights for about five seconds.

4. **After pressing the Tuner button on the Remote Control unit use the Numerical keys to enter the lowest channel number you want to preset.**

- You must enter the channel number while the AUTO MEMORY indicator is lighted.
- If the indicator turns off too soon, press the AUTO-MEMORY button and start again.
- When a radio station is tuned in, scanning stops. The TUNED indicator lights, a the first preset channel number blinks on and off for about five seconds.

5. **If you do not want to preset the station, press the AUTO-MEMORY button while the channel number is blinking. The CA-MX30BK will start scanning again.**

- When the station is preset, the "MEMORY" indicator lights and scanning starts again.
- This process continues automatically until all 40 channels are filled or the upper frequency limit is reached.

**Caution!** If the system is unplugged or if a power failure occurs, the preset stations stored in memory may be lost.

## Cancelling Preset Stations

1. **Press the CANCEL button on the Tuner.**
   The "CANCEL" light on the Tuner display blinks for 5 seconds.

2. **Press the PRESET button ( △ or ▽ ) on the Tuner to select the preset station you want to cancel.**
   If the "CANCEL" light has stopped blinking, press the CANCEL button again and repeat step 2.

3. **Press the CANCEL button again.**
   The preset station will be cancelled.

## Tuning in Preset Stations

- Press the PRESET button ( △ or ▽ ) on the Tuner to select the preset station you want. The preset station numbers are displayed sequentially each time you press the PRESET button.
- You can also select a station by entering its preset number on the Remote Controller's numeric keypad.

## FM Reception Modes

There are two FM reception modes: AUTO and MONO.

**AUTO:** Stations are tuned in with either STEREO or MONO, depending on the strength of the FM signal.
**MONO:** Stations are tuned in with MONO only. This will reduce interference noise of weak stations and make the reception sound better.

1. **Press the FM MODE/MUTE button on the Tuner to switch between the AUTO and MONO reception modes.**

- If a stereo broadcast is received when the FM band is selected, the "STEREO" light will be displayed on the Tuner.
- If the FM Reception Mode is MONO, the "STEREO" light will not be displayed.

# Using the Timers

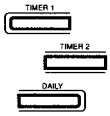


## Setting the Timers

The CA-MX30BK has three timers that are used to turn the system on and off automatically:

TIMER1
TIMER2
DAILY

With the timers you can make tape recordings of broadcasts, CD's, or tapes when you're not around. You can also play these music sources at specified times without recording them.




- Use TIMER1 and TIMER2 to record a radio broadcast when you're not home, or late at night when you're asleep.
- Use the DAILY timer to record a broadcast that occurs at the same time every day.
- The procedure for setting TIMER1, TIMER2, and the DAILY timer is the same. You need to tell the system:

— The name of the timer (TIMER1, TIMER2, or DAILY).
— The time the timer should turn the system on.
— The time the timer should turn the system off.
— The source the timer should turn on (Tuner, CD, or Tape).
— The volume level that should be used during recording or playback.

When you have given the system this information, it will know which source to turn on, when to turn it on and off, and how loud to play during this time period.

**Note:** The clock must be set to the correct time for the timers to be effective. See "Setting the Clock" on page 14.

### Choosing a Timer

Press the TIMER1, TIMER2, or DAILY button on the Tuner to select a timer. This puts the system in the Timer Setting mode. The information that the system expects next will blink on the display.

### Setting the Start Time

1. **Press the TUNING/TIMER/DIMMER buttons to set the hour that the system will turn on.**
   The ◁ button makes the hour number decrease, and the ▷ button makes the hour number increase.

2. **Press the MEMORY button.**
   This stores the hour portion of the start-time in memory.
3. **Press the TUNER/TIMING/DIMMER buttons, as in step 1, to set the minute.**
4. **Press the MEMORY button.**
   This stores the minute portion of the start-time in memory.

### Setting the Stop Time

1. **Press the TUNING/TIMER/DIMMER buttons to set the hour that the system will turn off.**
   The ◁ button makes the hour number decrease, and the ▷ button makes the hour number increase.

2. **Press the MEMORY button.**
   This stores the hour portion of the stop-time in memory.
3. **Press the TUNING/TIMER/DIMMER buttons to set the minute.**
4. **Press the MEMORY button.**
   This stores the minute portion of the stop time in memory.

**Caution!** Do not operate the remote controller when you are programming the timer.

### Selecting the Source

1. **Press the TUNING/TIMER/DIMMER button to select a source.**
   Repeatedly pressing the ▷ button displays the sources in the following order:

| Display | What it means |
|---|---|
| - - - - - - - - - | Plays from whichever source was used just before turning off the system |
| TUNER | Plays FM or AM (MW/LW) broadcast |
| TUNER TIMER REC | Records FM or AM (MW/LW) broadcast |
| CD | Plays a CD |
| TAPE | Plays a tape |
| - - - - TIMER REC | Records from whichever source was used just before turning off the system |

**Note:** If you choose an FM or AM radio station as the source, select the station by pressing the PRESET button on the Tuner.

2. **Press the MEMORY button. This stores the source to play or record in memory.**

**Note:** To change your selection, press the CANCEL button and enter a new value.

### Setting the Volume

1. **Press the TUNING/TIMER/DIMMER button to select a volume level.**
   Repeatedly pressing the ▷ button displays the volume levels in the following order:

| Display | What It Means |
|---|---|
| Vol — — | Volume set to the level used before beginning this timer setting procedure |
| Vol — 0 | Volume off |
| Vol — A | Volume barely on |
| Vol — B | Volume at 1/4 power |
| Vol — C | Volume at 1/3 power |

2. **Press the MEMORY button.**
   This stores the volume level for timed playback or recording in memory. To change your selection, press the CANCEL button and enter a new value.

### Pressing the Timer Button

This stores the timing information in memory. The timer you chose should blink on the display.

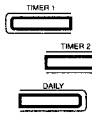
**Note:** If the timer light does not blink, the timer was not set properly, and you need to set the start time again.

### Turning the System Off

Press the POWER button on the Amplifier to turn the system off.

- The system is now programmed to turn on at the preset start-time, and play or record until the stop-time.
- It will record or play the preset source at the preset volume level until the stop-time is reached.
- If you turn the system on before the start-time, the timer will still operate as programmed at the start-time.

### Resetting the Timers




To reset a timer, press the button (TIMER1, TIMER2, or DAILY) on the Tuner twice. Now the timer is set again and will use the same start-time, stop-time, source, and volume level as before.

## *Setting the Wake-Up and Sleep Timers*

You can set a timer so it turns on to wake you up or turns off when you go to sleep.

### Setting the Wake-Up Timer

The wake-up timer serves as an alarm clock. It turns the system on after a programmed time lapse and plays the source that was used before the system was turned off. You can set a wake-up time from between 5 minutes and 12 hours.

1. **Press the POWER switch on the Amplifier so it is off.**

2. **Press the WAKE UP/SLEEP button on the Tuner.**
   This tells the system that you are going to set the wake-up time.

3. **Press the WAKE UP/SLEEP button repeatedly until the desired wake-up time appears.**
   Each time you press the WAKE UP/SLEEP button, the wake-up time lapse changes in the following order:

   → 0:05 → 0:10 → 0:15 → 0:30 → 0:45 → 1:00 → 1:30 → 2:00 → 3:00 → (every hour) → 12:00 → (back to the beginning)

- If you make a mistake, press the CANCEL button on the Tuner and enter a new wake-up time with the WAKE UP/SLEEP button.
- The wake-up timer has priority over TIMER1, TIMER2, and the DAILY timer.

  This means that if the start-time for one of the timers occurs before the wake-up time, the system will wait until the wake-up time to turn on.

**Note:** If CD is the source that will be used, playback begins with the first track.

### Setting the Sleep Timer

The sleep timer is used to turn off the system after a specified time lapse. With this timer you can fall asleep listening to music, knowing that the system will shut off automatically and not stay on all night. You can set the sleep timer to turn the system off from between 5 minutes and 2 hours

1. **Press the POWER switch on the Amplifier so it is on.**

2. **Start the source you want to listen to.**

3. **Press the WAKE UP/SLEEP button on the Tuner.**
   This tells the system that you are going to set the sleep time.

4. **Press the WAKE UP/SLEEP button repeatedly until the desired sleep time appears.**
   Each time you press the WAKE UP/SLEEP button, the sleep time lapse changes in the following order:

   → 0:05 → 0:10 → 0:15 → 0:30 → 0:45 → 1:00 → 1:30 → 2:00 → (back to the beginning)

- If you make a mistake, press the CANCEL button on the Tuner and enter a new sleep time with the WAKE UP/SLEEP button.

The system will now turn off after this time lapse.

- The sleep timer has priority over TIMER1, TIMER2, and the DAILY timer.

  This means that if the stop-time for one of the timers occurs before the sleep time, the system will wait until the sleep time before turning itself off.

### Checking the Remaining Time

After setting the wake-up or sleep timer, you can check the time remaining until the system turns on (wake-up time) or shuts off (sleep time).

**Press the WAKE UP/SLEEP button.**

The remaining time is displayed for 5 seconds. Then the clock time appears again.

### Adding More Time

If you want more time before the wake-up timer turns the system on (or the sleep timer turns the system off), follow these steps:

1. **Press the WAKE UP/SLEEP button.**
   The remaining time is displayed for 5 seconds. Then the clock time appears again.

2. **Press the WAKE UP/SLEEP button again before the clock time is displayed.**

- Keep pressing this button until the desired additional time is reached.
- The added-time will be displayed in the following order:

  0:05 → 0:10 → 0:15 → 0:30 → 0:45

Now the system will wait until the added amount of time until turning on or shutting off.

### Cancelling the Time Setting

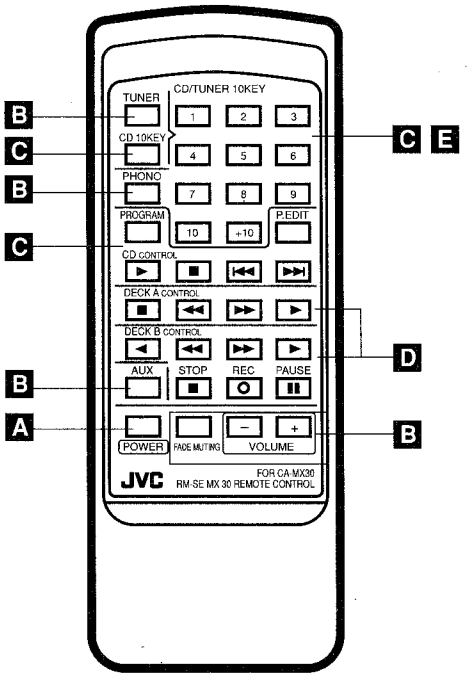
If you decide you don't want the system to wake you up or play music while you fall asleep, you can turn these timers off.

1. **To cancel the wake-up timer, press the POWER button on the Amplifier.**
   This turns the power on.

2. **To cancel the sleep timer, press the POWER button on the Amplifier.**
   This turns the power off.

# Using the Remote Controller



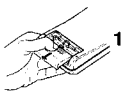



## Operating the Remote Controller

You can use the Remote Controller to operate the CA-MX30BK without leaving your chair.
You can use it up to a distance of 23 feet.

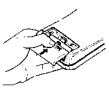
Point the Remote Controller at the remote sensor on the Amplifier.

## Installing Batteries



1. **Remove the battery compartment lid.**
   Press the lid and slide it in the direction of the arrow.

2. **Insert the batteries.**
   Use two AAA/UM-4/R03 size batteries. Make sure the + and - polarities on the batteries and compartment are the same.



3. **Attach the lid.**
   Press the lid and slide it in the direction of the arrow.

**Note:** Batteries installed incorrectly may burst or leak. Pay attention to the following:

- When the Remote Controller is not in use for a long period of time, remove the batteries.
- Do not mix old and new batteries.
- Do not mix batteries of different types, even if their shapes are the same.
- When batteries become weak, the operating distance of the Remote Controller is greatly reduced and you will need to replace the batteries.

## Remote Controller Buttons

| Function | Button(s) To Use |
|---|---|
| **A** Turn power on or off | POWER |
| **B Amplifier** | |
| Adjust volume level | + |
| Lower volume level gradually to 0 | − |
| Listen to Broadcast | TUNER |
| Listen to a VCR or another component | AUX |
| Listen to Record | PHONO |
| FADE MUTING Lower volume level gradually | FADE MUTING |
| **C CD Player** | |
| Play a CD | ▶ |
| Stop playback of a CD | ■ |
| Select CD mode | CD 10KEY |
| Select track number | 1 ~ +10 |
| Scanning music | ⏮ + ⏭ |
| Check program contents | ⏮ + ⏭ |
| Change a program | ⏮ + ⏭ |
| Program playback order | PROGRAM |
| **D Tape Deck** | |
| Play a tape in forward direction | ▶ |
| Play a tape in B deck in reverse direction | ◀ |
| Stop playback in B deck temporarily | PAUSE |
| Stop playback | ■ |
| Fast forwarding or Fast rewinding | ⏪, ⏩ |
| Search for beginning of next track while in forward direction | ▶ + ⏩ |
| Search for beginning of next track while B deck is in reverse direction | ◀ + ⏪ |
| Search for beginning of current track while in forward direction | ▶ + ⏮ |
| Search for beginning of current track while B deck is in reverse direction | ◀ + ⏭ |
| Recording in forward direction | REC ● + ▶ |
| Recording with B deck in reverse direction | REC ● + ◀ |
| Pausing recording | REC ● + PAUSE |
| Restarting recording in forward direction | ▶ |
| Restarting recording in reverse direction | ◀ |
| Stopping recording | ■ |
| Recording from CD in the Programmed-Edit mode | P.EDIT<br>1 ~ 10, +10 |

**Note:** Where ' + ' is indicated, press and hold the first button illustrated, then press the second.

**E Tuner**

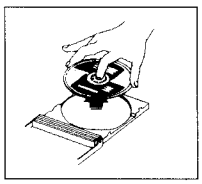
| | |
|---|---|
| First select TUNER mode | TUNER |
| Selecting a preset station | 1 ~ 10, +10 |

# General Notes

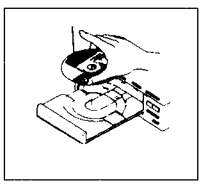
## Care and Handling

You must handle your compact disks, cassette tapes, and tape deck carefully to keep them for a long time.

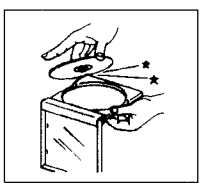
### Compact Discs



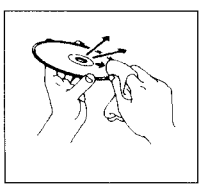
- Remove the CD from the case by holding it at the edges while pressing the center hole lightly.
- Do not touch the shiny surface of the CD, or bend the CD.



- Place the CD in the tray with the label up.



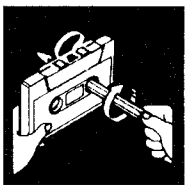
- Put the CD back in its case after use to prevent warping.
- Be careful not to scratch the surface of the CD when placing it back in the case.
- Avoid exposure to direct sunlight, temperature extremes, and moisture.



- If the CD becomes dirty, wipe it with a soft dry cloth in a straight line from center to edge.

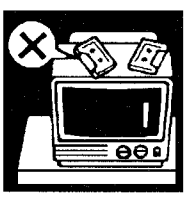
**Caution!** Do not use any solvent (for example, conventional record cleaner, spray, thinner, benzine, etc.)

### Cassette Tape



- If the tape is loose in the cassette, take up the slack by inserting a pencil in one of the reels and rotating.
  If the tape is loose, it may get stretched, cut, or caught in the cassette.

- Do not touch the tape surface.

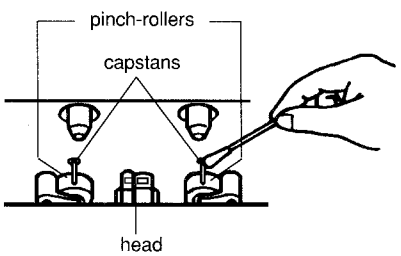


- Do not store the tape:
  — In dusty places
  — In direct sunlight or heat
  — In moist areas
  — On a TV or speaker
  — Near a magnet

### Tape Deck

- If the head, capstans, and pinch-rollers of the tape deck become dirty, the following will occur:
  — **Impaired sound quality**
  — **Discontinuous sound**
  — **Fading**
  — **Incomplete erasure**
  — **Impossible to record**

- Clean the head, capstans, and pinch-rollers with a cotton swab moistened with alcohol.




- If the head becomes magnetized, it will produce noise or lose high frequencies.

  To demagnetize the head, turn off the system, and use a head demagnetizer (available at electronics and record shops).

# *Trouble-shooting*

| Symtom | Possible Cause | ACTION |
|---|---|---|
| **No sound is heard.** | Connections are incorrect. | Check all conections and make corrections. (see Connections on page 6) |
| **Impossible to record.** | Tape tabs are broken. | Cover tabs with adhesive tape. |
| **Hard to listen to broadcasts because of noise.** | The antenna is disconnected. | Re-connect the antenna securely. |
| | The loop antenna is too close to the system. | Change the position and direction of the loop antenna. |
| | The T bar antenna is not stretched. | Stretch the T bar antenna wire at the best reception position. |
| **The CD sound is discontinuous.** | The CD is scratched or stained. | Clean or replace the CD. |
| **Unable to operate the remote controller.** | There is an obstruction blocking the remote sensor on the amplifier. | Remove the obstruction. |
| **The CD tray cannot be operated.** | The power plug or ribbon cable connector is disconnected. | Connect the power plug or ribbon cable connector securely. |
| | The POWER button is set OFF. | Set the power button to On. |
| **The CD does not play.** | The CD is upside down. | Set the CD with the label side up. |
| **Operations are disabled.** | The built in microprocessor may malfunction due to external electrical interference. | Unplug the system then plug it back. |
| **The cassette holder cannot be opened.** | The system was turned off because the timer was operated while the tape was running. | Turn On the system.. |
| **Color shading or stripes appear on the TV screen.** | The TV channel sound only selected by this system is different from the channel selected by the TV. | To prevent this interference, select the same channels on this system and the TV. |

# *Specifications*

**Amplifier**

Output Power: **25 watts per channel, min. RMS, both channels driven into 8 ohms, from 40Hz to 20kHz, with no more than 0.9% total harmonic distortion.**

25 watts per channel, min. RMS, both channels driven into 8 ohms at 1 kHz with no more than 0.9% total harmonic distortion (DIN)

Total Harmonic Distortion at Half-Rated Power: 0.07%(at 1kHz)

Input Sensitivity/ Impedance (1kHz)

| | |
|---|---|
| PHONO | 2.5mV/50k ohms |
| MIC | 1.5 mV/10k ohms |
| VIDEO/AUX | 220mV/50k ohms |
| SEA Center Frequencies | 63, 250, 1k, 4k, 16kHz |
| SEA Control Range | +10dB ± 1dB<br>–10dB ± 1dB |

**Compact Disc Player**

| | |
|---|---|
| Dynamic Range (1kHz) | 90dB |
| Signal-to-Noise Ratio | 100dB |
| Frequency Response | 5Hz-20kHz |
| Wow and Flutter | Unmeasurable |

**Tape Deck**

| | |
|---|---|
| Frequency Response | $CrO_2$ : 30-16,000Hz<br>Normal : 30-15,000Hz |
| Wow and Flutter (WRMS/DIN) | 0.09%/0.22% |

**FM Tuner**

| | |
|---|---|
| Tuning Range | 87.5 MHz ~ 108.0 MHz |
| Usable Sensitivity | 0.95μV/75 ohms (10.8dBf) |
| Signal-to-Noise Ratio (IHF-A Weighted/DIN) | MONO (at 85dBf) 80dB/72dB<br>STEREO (at 85dB) 73dB/64dB |

**AM Tuner**

Tuning Range
MW

| Area | Channel Space | |
|---|---|---|
| | 9 kHz | 10 kHz |
| Canada | — | 530 kHz ~ 1710 kHz |
| Continental Europe, U. K. | 522 kHz ~ 1629 kHz | — |
| Australia | 522 kHz ~ 1629 kHz | — |
| Other Area | 531 kHz ~ 1602 kHz | 530 kHz ~ 1600 kHz |

LW Tuning Range: 144 kHz ~ 353 kHz (For Continental Europe, U.K.)

**General**

| | |
|---|---|
| Dimensions | 10-7/8x12-1/2x10-3/4 inches (275x316x273 mm) |
| Weight | 16.6lbs (7.5kg) |

*Design and specifications subject to change without notice.*